



Some non-stationary processes in earth mantle

Andrew N. Grushinsky (1) and Alexandr N. Bogolyubov (2)

(1) Institute of Physics of Earth, Russian Academy of Sciences, Moscow, Russian Federation (a.grushinsky@mail.ru), (2) Lomonosov's Moscow State University, Physical Department, Moscow, Russian Federation

By modern conception the Earth have shell structure. The Earth's rotation is differential. In result of this, the tangential stress occurs on the shell boundary and can results in sliding of the shells.

If it is some thermal heterogeneities in the core (on the boundary mantle-core), such sliding causes reconstruction of mantle convection (for example, shift of vertical boundary of the convection cell together with heat source).

The numerical experiment was made for imitation of such convection structure reconstruction. The preliminary results considers in this presentation.